



WASTEX RESEARCH, INC.

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WASTE MANAGEMENT BRANCH
EPA, REGION V

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January 12, 1983

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E.P.A. — D.L.P.C.
STATE OF ILLINOIS

RCRA Activities
Part B. Permit Application
U.S. E.P.A., Region V
P.O. Box A 3587
Chicago, IL 60690-3587

EPA Region 5 Records Ctr.



315957

Attention: 5HW-RUB

Subject: RCRA Permit Part B, I.D. No. ILD980700744, (Old
I.D. No. ILT180013872)

Gentlemen:

Persuant to the Agency letters of November 9, 1982 and December 23, 1982, we are submitting herewith the information necessary to complete the application for a RCRA Part B permit for Wastex Research Incorporated. We are submitting four copies of this submittal to your Agency and a copy to the Permit Section of Illinois E.P.A. We appreciate your forbearance in granting us the additional time for preparation of this material and trust that this information will allow the issuance of the subject permit. The response follows the format of the questions in the letter of November 9.

A point of concern that remains for Wastex at this time regards the financial assurance mechanism for closure. We have executed a Trust Fund Agreement with Union Bank of East St. Louis as allowed and specified in the regulations based upon the closure costs for the quantity of material permitted by the Illinois Environmental Protection Agency for storage at the facility. We do have a quantity of other hazardous waste at the facility that is covered under a court order and settlement agreement between the Illinois E.P.A. and Wastex. The inventory of that material is being reduced over a period of time under the conditions of the court order and settlement agreement and we feel that being required to include that inventory under the closure trust fund would unnecessarily overburden the financial resources of Wastex. This inventory reduction has continued well in excess of the rate required even though the Illinois E.P.A. appears to have been remiss in fulfilling their commitment to expeditiously review and

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process the construction and operating permits for additional processes at the facility that will allow total removal of that material from our inventory. We feel that this material being under the ongoing scrutiny and jurisdiction of a court of the land adequately assures its proper removal and disposition and its inclusion under the trust fund would be redundant and request that the trust fund as executed be accepted as all that is necessary.

Should additional information be required or should a meeting be deemed necessary to discuss the permit application, please contact my office or that of Joe D. Burroughs.

Respectfully submitted,

WASTEX RESEARCH, INC.



James E. Markle,
President

Enclosure: Part B application information.

cc: Tom Immel - Corporate Attorney
Tom Cavanagh - Permit Section, Illinois E.P.A.

1. Of the 35 wastes shown on the form 3510-3 submitted as a part of the application, there are 33 that are listed hazardous wastes and we feel that no further discussion of such listed wastes should be required. The only listed wastes currently being accepted for treatment or storage are those assigned the hazardous waste number F003 and F005. The non-listed hazardous wastes currently being accepted by the facility are those assigned a hazardous waste number of D001 due to flammability characteristics. These materials fall under the general categories of waste paints, waste paint thinner, ink wastes, wash solvents, waste alcohols, and off-specification organic materials. Typical analyses of these materials are given in Attachment I to this letter.

2. Waste Analysis Plan. The length of the waste analysis plan submitted as a part of the Part B application should not be a point of consideration by the Agency. Additional or extraneous comments and information to give the plan an "adequate" length would be wasteful for both the facility and the Agency. A revised Waste Analysis Plan containing the information necessary for compliance with 40 CFR 264.12 is enclosed as Attachment II to this letter.

3. Containers used to store hazardous waste with free liquid:

(a) The containers will be standard size 55 gallon drums except for those instances where it will be deemed necessary to place a drum in a protective overpack.

The drums used for the storage of materials classified as hazardous due to ignitability or EP toxicity characteristics will be constructed of carbon steel materials to meet DOT specifications under 49 CFR 173 Subpart D. Corrosive hazardous wastes will be stored in carbon steel drums with a polyethylene liner or in a metal drum of a material impervious to attack by the wastes. These drums will be those in which the generator placed the material as specified in 49 CFR 173 Subpart D.

Drums that are transported by Wastex will be inspected prior to loading and any leaking drums or suspect drums will not be accepted for loading. Drums of hazardous waste delivered to Wastex will be inspected as they are unloaded and any leaking or suspect drums will be emptied into a compatible drum or placed in a polyethylene overpack prior to storage. Suspect drums are those that show significant bulging of the heads, sharp or deep dents or creases, or significant rust or corrosion.

The number of containers will be limited by conditions imposed in operating permits required by the Illinois Environmental Act as issued by the Illinois Environmental Protection Agency, by the amount of space required in the containment areas for the

safe placement, storage and retrieval of the drums, and by the spill retention capabilities of the individual retention areas. Engineering Drawing P5 enclosed delineates the maximum design storage capabilities for each of the containment areas, the method of storage, and the retention capacity of each of the containment areas.

(b) As in (a) above, drums to be transported by Wastex will be inspected prior to loading and any leaking or suspect drums will not be loaded. In those few cases where transporters other than Wastex deliver drums to the facility the drums will be inspected as they are unloaded and any liquids in a leaking or suspect drum will be transferred to a different drum of a compatible material or the drum will be placed in a polyethylene overpack. Drums received by the facility for storage will be handled by experienced personnel using fork truck mounted drum handlers. Each drum will be opened and the material checked as to odor, color, and viscosity (visually) to assure correlation with the manifest or bill of lading and the drum resealed. Drums will be stored in areas containing only compatible materials. Non-compatible materials will be placed in areas with separate containment systems. The drums will be stacked three high, or less if limited by the Illinois E.P.A., and sufficient aisle space will be provided for safe placement and retrieval of the drums and for inspection and location of drums that may develop leaks. All drum storage areas at the facility will be located in buildings with a sound roof overhead.

(c) The containment system to be provided for the storage areas will combine the existing six inch high concrete curb with a 6 inch high flanged steel barrier anchored to the floor. Any joints between sections of the barrier and the joint between the barrier and floor will be sealed with a sealant that will not be subject to degradation by the material to be stored in that area. The retention capacity of the storage areas is calculated using the six inch curb as the maximum height of the liquid to be retained. Ramps over the containment barrier will be provided, permanent and movable, for lift-truck access with sufficient width and slope for safe handling of the hazardous wastes.

(d) Hazardous waste will not be stored on floors over any basement areas and the containment barriers to be erected will not include any such areas. All ground floors to be used are 12 to 15 inches thick and should adequately contain any spills of hazardous wastes for the short period prior to clean-up. The floors in the containment areas will be inspected and any sizeable or open cracks which could allow seepage into the ground will be sealed with a cement grouting compound.

(e) The drums to be stored by the facility will fall into two categories; wastes classified as hazardous due to ignitability or due to corrosiveness. The prevention of contact with free standing liquids by the drums will vary slightly between these two categories. The floors into the containment areas

are relatively flat and will not promote natural drainage of spilled material away from the drums.

The storage of ignitable materials will involve setting the drums on the floor in small groups. Should a spill of material in these areas occur the primary means of clean up will be the use of absorbent materials. Non-leaking drums will be removed from the area of the spill and the drum, or drums, from which the spill originated will be placed in polyethylene overpacks or the contents transferred to other compatible drums. The removal of the spilled material will then be completed with absorbent material. If the spilled material is a listed hazardous waste the clean up materials will be retained as a hazardous waste and be disposed of accordingly. If the material spilled is a non-listed hazardous waste the clean up materials will be retained for processing in the fixation/solidification process with the intention of converting the material to a non-hazardous waste. Sumps will be installed in the containment areas in case a major spill would happen. In such an instance the spilled materials would be manually pushed to the sump and it would be pumped into drums from the sump. Residual materials remaining in the containment area would be handled by the use of absorbent materials.

Drums of corrosive hazardous materials will be stored on substantial wooden pallets to assist in minimizing contact of the drums with any spilled material. These drums will also be stored in small groups to facilitate locating leaking drums. Primary clean up of spilled materials will be with a compatible absorbent material. Non-leaking drums will be removed from the spill area and the leaking drum, or drums, will be placed in polyethylene overpacks or the material transferred to different drums. Sumps will be provided in the containment areas to handle the removal of a major spill. Should such a spill happen the material that will drain to a sump will be pumped into compatible drums and the residual on the floor will be handled with the absorbent material. Clean up materials from a spill of listed hazardous wastes will be handled as listed hazardous waste. Materials from the clean up of non-listed hazardous wastes will be processed in the fixation/solidification process with the intent of converting them to a non-hazardous waste.

The time that a drum will remain in contact with spilled material is minimized by the frequent and on-going inspection of the storage area. All operating employees are instructed to report leaking containers to supervision immediately and to spread the necessary absorbent materials without delay. Security personnel patrol the storage areas twice each hour and are instructed to note any minor leaks, such as seepage from a single drum, and to call supervision should a significant spill be observed, such as a drum being ruptured and spilled.

(f) As noted above under 3(a) Engineering Drawing P5 is enclosed which delineates the maximum design storage capabili-

ties for each of the containment areas, the method of storage, and the retention capacity of each of the containment systems. Also included on that drawing is the anticipated normal or average number of drums to be stored in each area.

(g) No run-on into the drum storage areas is anticipated as all areas are enclosed in buildings and the top of structures providing containment is above grade in each instance. Precipitation from any type of event other than a severe storm will not enter the storage areas. Any accumulation which might result from such an event will be collected in the sumps and disposal will be as required by permits to be issued by Illinois E.P.A.

(h) As discussed earlier the detection of accumulated liquids with the various containment systems will be through observation by the facility operating and security personnel. All personnel are ordered to report any accumulation of liquids, resulting from spills, leaks, or precipitation events, to supervision. During normal operating periods this will be accomplished by the operating personnel and during non-operating periods such reports will be generated by the plant security personnel as a result of their twice per hour inspection tours of the facility. When a significant spill or accumulation is reported, operating personnel will use portable air-operated pumps to remove liquids from the sumps or absorbent materials to remove spills where they do not drain to the sumps.

4. All tanks to be used for the storage of hazardous wastes have been reviewed by a registered professional engineer with regard to conformance with an acceptable standard for tank design and installation. A tabulation of the data used for this review and the minimum applicable standards used for the review is enclosed as Attachment III. Copies of Engineering Drawing P5, Revision 1, and Engineering Drawing P6 are enclosed to show schematically piping, instrumentation, flow pressure controls, and bypass systems. Pumps to be used for the transfer of hazardous wastes are manually controlled air operated pumps. With the pumps being manually controlled the facility has elected not to install automatic shut-off valves in the tank inlets but to allow 5 percent of the capacity of each tank as free board and use the 95 percent of capacity as the point where a high-level alarm will be generated. The pump operator will be in the immediate area of the pump in operation and be able to respond adequately in case of a high level signal to shut down the pumping operation. One model of pump, Wilden Model M-8, is to be used for handling hazardous wastes and it is rated at 250 gpm with zero head. The estimated flow for routine pumping is 200 gpm. Duplicate alarming in the facility office will assist in assuring a rapid response to any high-level alarm. All tanks will be monitored continuously in the tank level monitoring system to be used. All tanks to be used for the storage of flammable hazardous wastes will be equipped with pressure controls to allow atmospheric venting at 8 ounces per square inch pressure and $\frac{1}{2}$ ounce per square inch vacuum. Additional pressure relief will be provided at $2\frac{1}{2}$ pounds per square inch pressure.

6. (a) Hazards involved in the unloading of hazardous wastes will be minimized by the use of conscientious, trained personnel working under close supervision. Any employee handling the hazardous waste in an unsafe or unapproved manner will be the subject of an immediate reprimand or dismissal. Each employee is responsible for assuring that the equipment he will use is in safe working order. The employee handling the unloading operation will be aware of the hazards of the material he is handling and trained in the proper action to be taken should an incident occur. Absorbent materials will be available to handle any spills of flammable liquids not otherwise controlled or contained and materials to contain and neutralize acids or alkaline corrosive materials will be provided in the immediate area when that type of hazardous waste is being unloaded. Reactive wastes will not be handled by this facility under the present planning.

When the hazardous waste to be unloaded is contained in drums, the drums will be inspected before they are unloaded and any leaking or suspect drums will be placed in protective overpacks until the contents can be transferred to another container. Drums will be unloaded at the closest possible point to the area in which they will be stored.

When the hazardous waste is to be unloaded from tank trucks all lines, fittings, and other equipment to be used will be inspected prior to initiation of the operation and the proper line routing of the material to storage will be verified. All transfer lines will be permanently installed except for the line connected to the tank truck.

(b) With the exception of unloading operations and the transfer of material from one storage area to another, hazardous waste will be handled only in areas enclosed in secondary containment structures meeting the requirements of 40 CFR 264.175. No leaking container will be transferred or handled unless it has been placed in a protective overpack or only as necessary to transfer the hazardous waste into another container. Transfer of hazardous waste from one bulk storage tank to another or to a processing unit will be accomplished by the use of permanently installed transfer lines only. No hoses or other such temporary connections will be allowed unless an emergency exists and then only for the movement of material from one storage tank to another within the same containment area.

The secondary containment structures for hazardous waste storage and processing areas will be permanently installed and will have no openings allowing spilled or leaking material to drain away from the contained area.

(c) The facility is located in an industrial area of the City of East St. Louis. All potable water for the city is provided by Illinois-American Water Company from plants taking water from the Mississippi River. There are no known withdrawals of ground water for potable water supplies within the city. The storage

areas for drums containing hazardous wastes have concrete floors that will be relatively impermeable to the minor leaks and spills and any materials leaking or spilled onto the floors will be removed by pumping from sumps or by absorption in absorbent materials in a short time after the material is observed. The diked areas for the bulk storage tanks for hazardous wastes are such that any accumulation of spilled or leaking material will be retained in a basin constructed of concrete and steel or with a compacted clay liner. Any significant accumulation of hazardous waste in the containment structure will be removed as soon as possible after its presence is determined. No effect on the groundwater in the area of the facility would be expected due to the permeability of the containment structures and the short period of time those structures would be exposed to hazardous wastes.

(d) Retention of hazardous wastes at the facility is not dependent upon availability of power. All retention equipment will be permanently installed. Loss of power will cause all hazardous waste transfer and processing to cease but no safety problems or release of hazardous wastes to the environment would result nor would damage to the facility or processing equipment be significant. Should an equipment failure or power outage occur that does not cause the transfer or processing of hazardous wastes to cease, the operations will be halted until it can be verified that the operations can be safely continued and the required safety features and environmental control equipment are available and functioning properly.

(e) The personnel training program for the individuals employed at the facility makes those individuals aware of the hazards involved in handling the hazardous waste materials, the proper procedures necessary in handling the material to protect themselves, their fellow workers, and the people living in close proximity to the facility, and the minimum safety equipment to be used when working with or around the hazardous wastes. Available equipment includes: safety helmets (mandatory), chemical goggles, full face shields, rubber gloves, rubber aprons, full body protective clothing, dust respirators, organic vapor respirators, and self-contained breathing apparatuses. Use of the minimum level of safety equipment is mandatory and use of that sufficient to help the individual feel confident of his safety is recommended.

With the known flammability of portions of the hazardous waste to be stored or processed the dangers of smoking or operation of any equipment which may be an ignition source for flammable gases or vapors are emphasized. No Smoking signs are prominently displayed in the hazard areas and the policy is rigidly enforced by supervision for employees and visitors. The operation of any equipment in an area which has any potential to contain flammable gases or vapors is prohibited until the area atmosphere has been sampled and there is no danger of the lower explosive limit being exceeded in that area.

Entrance into any tank, sewer, or other such enclosed area is also prohibited without a self-contained breathing apparatus and safety line. Employees may work in such an area without the self-contained breathing apparatus only if sampling shows sufficient oxygen to be available and the atmosphere in the enclosed area sampled continuously.

Employees failing to comply with all safety requirements of the facility are subject to immediate reprimand or dismissal.

7. (a) There will be no reactive wastes stored or processed at this facility. The specific precautions used to prevent the ignition of ignitable wastes are based upon the requirements of the Illinois State Fire Marshal and such other safety practices as would minimize the ignition hazard. These will include the following:
 1. Controlled access to the facility,
 2. Around the clock guards employed by Wastex,
 3. Twice per hour guard patrols during non-operating hours for security and fire protection,
 4. Equipment in excess of that suggested by the State Fire Marshal to minimize the effect of any fires at the facility,
 5. All personnel trained in handling facility fire equipment,
 6. A contingency plan on file with the City Fire Department,
 7. Explosion-proof electrical equipment and installation in all areas where ignitable hazardous waste is stored or processed,
 8. Strict enforcement of prohibition of smoking in areas where ignitable hazardous waste is stored or processed,
 9. No activities or equipment which could be a source of ignition will be allowed in areas where flammable gases or vapors may exist unless sampling in the area demonstrates that such gases or vapors are not present, and
 10. Automatic sprinklers, building ventilation, and explosion venting capability will be provided as required by the Illinois State Fire Marshal to minimize the effects of any fire or explosion which may occur.
- (b) The precautions for handling ignitable waste will include:
 1. Trained personnel,
 2. Proper equipment for handling material provided,
 3. No smoking requirements,
 4. Explosion-proof electrical installation in areas where ignitable materials are handle, stored, or processed.

5. Non-sparking tools and equipment,
6. Ventilation to preclude fume or vapor accumulation,
7. Limited access enforced by plant security.

(c) There will be no reactive waste accepted or generated at the facility. Prior to acceptance of any waste by the facility, an analysis is made of the material for those parameters which cause the materials to be classified as hazardous waste, for those parameters which help determine compatibility with other wastes and materials of construction, and to determine if the material is amenable to the processes at the facility. When hazardous waste is received by Wastex, the manifest information is verified according to the Waste Analysis Plan. The containers are held in an interim hazardous waste storage area and segregated from other wastes pending the manifest verification. If the shipment is to be scheduled for processing immediately it will be placed in the working storage area for that process with other wastes of known compatibility. If processing is to be delayed for a period of time the material will be placed in a storage area with other similar materials. The containers will be code marked with generator identification and a material designation prior to movement from the interim storage area. All storage areas will be equipped and maintained to handle the type of hazardous waste to be stored, ignitable, corrosive alkaline, or corrosive acidic, and all will require the precautions taken to prevent ignition as shown in 7. (a) above. All drums are inspected prior to any movement or transfer and any leaking or suspect containers will be placed in a protective overpack or the contents transferred to another drum.

The storage areas for the drums of ignitable wastes will be operated in accordance with the requirements of the Illinois State Fire Marshal and the Illinois E.P.A. No wood pallets or other wood separations or supports will be used for the drums. The drums will be stacked no more than three high, or less if mandated by the state agencies, with sufficient aisle space to safely handle the drums with a lift truck mounted drum lifter. The drums will be separated at intervals to allow easy access to any leaking. Drums of corrosive wastes will not be stored in the same storage area as those containing ignitable wastes.

Each storage area will have an individual secondary containment structure and at no time will a drum containing ignitable waste be stored within 50 feet of the facility's property line. During non-operating periods the storage areas will be inspected twice per hour by plant security personnel as a security precaution, as a fire watch, and to check for any significant leaks of material from the drums. All such inspections are logged on a security report. Should any significant leaks or other unsafe items be observed supervisory personnel are on call on an assigned basis with permission to call out operating personnel as required to handle problems that may arise.

(d) All storage tanks to be used for ignitable waste will meet the requirements of the Illinois State Fire Marshal and Illinois E.P.A. Pressure relief will be provided on each tank at $\frac{1}{2}$ ounce per square inch of vacuum and at 8 ounces per square inch of positive pressure. Additional safety relief is provided at $2\frac{1}{2}$ pounds per square inch. To preclude a buildup of pressure in a tank being filled the vapor in the tank displaced by the liquid is vented back to the unit from which the liquid originated. All electrical equipment in the area of the tanks or tank-mounted will be explosion-proof and will meet the requirements of the National Electrical Code Division I, Class I, Group D. Electrical equipment not meeting this requirement and an other equipment or operation which could provide a source or ignition for flammable vapor or fumes will not be used unless the atmosphere in the area has been tested to verify that a lower explosive limit is not attainable and the atmosphere is to be monitored continuously with a self-powered unit which provides audible and visual indication of an approach to a lower explosive limit.

All tanks used for the storage of ignitable wastes are fabricated from carbon steel and ignitable wastes to be accepted by the facility must be compatible with that material. Corrosive wastes will not be stored at any time in these steel tanks that have been or will be used to store ignitable wastes. Incompatible ignitable wastes will not be blended in storage tanks. If such blending is feasible it will be done in a separate vessel designed to accomodate the products of any reactions that may result.

All storage tanks and process equipment for ignitable wastes will have an earth ground and all interconnections will be permanent. Tank trucks will be unloaded through a flexible hose but a ground connection for the tank truck will be provided and will be used during all loading or unloading operations.

A digital display which will show the quantity of ignitable waste in each tank will be provided at each tank battery. The quantity will be shown to the nearest 100 gallons. The smallest tanks to be used for this material have a 10,500 gallon capacity. The high-level alarm set-point on all tanks will be set at 95 percent of the tank capacity. An electronic system using an ultra-sonic transducer in each tank will provide the level indicator and high-level alarm, both visible and audible.

8. (a) The Contingency Plan for the facility has been revised. This revision adds definitions to the function of the Security Coordinator and Emergency Coordinator and details the reports required when the Contingency Plan is implemented and the recipients of such reports. A copy of the revised contingency plan is attached.

(b) The Plot Plan for the Contingency Plan, Sketch SK-1, has been revised by the addition of suggested evacuation routes for personnel working in the various areas of the facility where

hazardous wastes are stored or processed. All personnel have been provided a copy of this sketch with instructions to become familiar with the routes and each employee safety training session will include the evacuation routes as a point of discussion.



WASTEX RESEARCH, INC.

CONTINGENCY PLAN

The intent and purpose of this Contingency Plan for the Hazardous Waste Facility operated by Wastex Research, Incorporated at 2000 Broadway in the City of East St. Louis, Illinois, is to minimize the hazards to the employees and individuals in the area of the facility or to the environment resulting from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

This Contingency Plan is to be initiated immediately by the Emergency Coordinator, or the alternate individual from the list of key personnel, upon notification that an imminent hazard exists for the facility or individuals in the area of the facility. The Emergency Coordinator is assigned a position from the list of key personnel, shall be on site or immediately available upon call at all times. The Chief of Security or security officer on duty shall be notified at all times that the Emergency Coordinator is not available and the individual assigned to fulfill that function.

EMERGENCY COORDINATOR

It shall be the function of the Emergency Coordinator to cause the implementation of the Contingency Plan when necessary, to assure that the proper city departments are notified, to assure that all employees in areas affected by the emergency have been evacuated, to supervise efforts required to minimize the hazards caused by the emergency, to contact those agencies requiring immediate notice per 40 CFR 264.55 (d) (2), and to assure that any required written reports are submitted in a timely manner per 40 CFR 264.56 (j).

SECURITY

Security at the facility is the responsibility of the Security Coordinator and the security program thereunder is supervised by the Chief of Security. Security is maintained by guards, all other

facility-employed personnel, and a fence which completely surrounds the facility. The security guard is provided 24 hours per day, 7 days per week. The guards regulate all traffic through the main gate of the facility and during non-operating hours make twice per hour inspection patrols through the complete facility.

All facility personnel, while on the grounds, share the responsibility and duty to maintain the security of the facility and to protect and preserve the safety of the individuals in and around the area of the facility and of the equipment and materials involved in the operation.

The fence around the facility is a six foot Cyclone Fence with three strands of barbed wire at the top. Warning signs have been placed appropriately around the perimeter of the facility. Just as all plant and office personnel must attend all training sessions of the facility, the security guards are also required to attend these meetings. Each security guard is familiar with the grounds inside the fenced area of the facility, and is readily available to assist in the event of an emergency. The Security Coordinator and the Chief of Security have been given plot plans of the facility. These plans show all entrances and exits to all buildings and the material stored in each building. The Security Coordinator and Chief of Security work very closely with the Emergency Coordinator of the facility to achieve any and all requirements set forth in the rules and regulations of the U.S. E.P.A.



Each employee of the facility has been provided a copy of the facility Plot Plan, Sketch SK-1, with safe evacuation routes from each area of the facility. These routes are prominently marked and have been instructed to familiarize themselves with those routes. As noted on the Plot Plan, the assembly point, should evacuation be required, is at the main gate. Should that be considered a hazardous location the secondary assembly point is at the intersection of Eighteen Street and Broadway Avenue. Evacuated employees are ordered to remain at the assembly point until a head count can be completed. The Plot Plan is posted conspicuously in the facility where employees may congregate and is a point of discussion on the agenda of each safety meeting.

EMPLOYEE RESPONSIBILITIES

The responsibilities and actions of the facility personnel have been covered during training sessions and safety meetings at the facility. All facility personnel are required to attend these meetings. Depending upon the area or equipment with which the employee is working, the responsibilities in an emergency will vary.

First and foremost in the event of an emergency, will be for the employee to report the emergency to his supervisor and/or fellow employees. In turn, he or his supervisor will notify the Emergency Coordinator. After doing this, the employee is to take whatever steps possible to assist in the handling of the emergency. Each employee is well versed in the proper usage of emergency equipment, safety equipment, and all emergency exits. In the event of a major emergency, the employee will evacuate the facility by the shortest and fastest means possible. Once outside the perimeter of the facility they will assist local fire and police departments in any way possible. The point of evacuation from the facility will be through the main gate located at the northwest corner, (Broadway Avenue), of the facility. The safety of the employees is of first concern in the event of any emergency.

CITY OF EAST ST. LOUIS:

A copy of the "Contingency Plan", as well as a plot plan of the facility, and a description of the material in storage at the facility, has been delivered to the City of East St. Louis Fire Department. A copy of the plan is attached herewith.

POLICE:

A copy of the "Contingency Plan", as well as a plot plan of the facility, and a description of the material in storage at the facility, has been delivered to the City of East St. Louis Police Department. A copy of the plan is attached herewith.



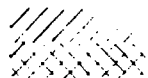
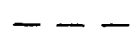

HOSPITALS:

A copy of the "Contingency Plan", as well as a plot plan of the facility, and a description of the material in storage at the facility, has been delivered to St. Mary's Hospital. A copy of the plan is attached herewith.

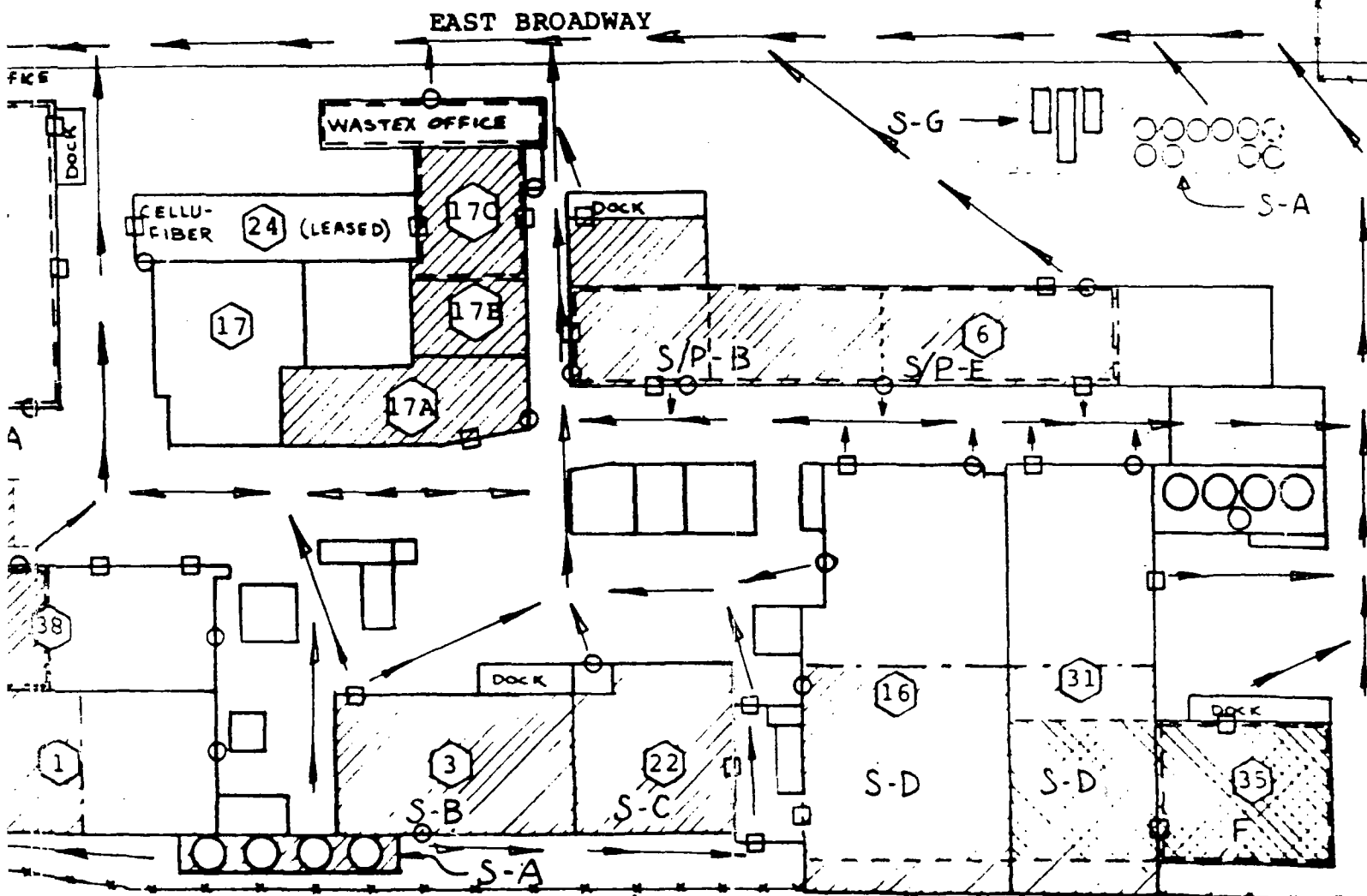
SKETCH SK-1

Wastex Research, Inc.
East St. Louis, Illinois

Legend:

- Major Building Exits - 
- Minor Building Exits - 
- Wastex Storage and Processing (2 story) - 
- Major Traffic Areas Enclosed By - 
- SUGGESTED EVACUATION ROUTES - 

SECONDARY ASSEMBLY AT
8TH AND BROADWAY



ATTACHMENT I

Typical Waste Analysis

Waste Paint :

Liquid - 92 to 98% of total by weight.

Mineral Spirits	20%
Xylenes	55%
SC-100 Aromatic Naphtha	13%
SC-150 Aromatic Naphtha	<u>12%</u>

100%

Solids - Up to 8% of total by weight, Paint Pigments

Waste Paint Thinner:

Aliphatics	5%
Methyl Ethyl Ketone	20%
N Butyl Alcohol	1%
Toluene	35%
Methyl Isobutyl Ketone	1%
N Butyl Acetate	1%
Xylene	21%
SC-100 Aromatic Naphtha	<u>16%</u>

100%

Ink Waste:

Liquid - 90 to 95% of total by weight.

Aliphatics	5%
Isopropyl Alcohol	70%
Ethyl Acetate	5%
Isopropyl Acetate	10%
Isobutyl Acetate	<u>10%</u>

100%

Solids - Pigments, 5 to 10% of total by weight.

Waste Solvents:

Methyl Alcohol	3%
Aliphatics	3%
Isopropyl Alcohol	7%
Trichloroethylene	10%
Toluene	57%
Xylenes	6%
SC-150 Aromatic Naphtha	4%
Water	<u>10%</u>
	100%

Waste Alcohols:

Methanol	65%	25%
Ethanol	25%	or 65%
Water	<u>10%</u>	<u>10%</u>
	100%	100%

Off-Spec. organic material (Typical Resin)

Alkyd Resins	25%
Mineral Spirits	20%
Styrene	5%
V M & P Naphtha	15%
Xylene	10%
Poly Resins	<u>25%</u>
	100%